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#### W81XWH-08-1-0003

Partial Conference Grant Support American Medical Informatics Association 2007 Annual Symposium Final Proceedings Report

Principal Investigator: Don Detmer, MD, MA President and CEO, American Medical Informatics Association

> American Medical Informatics Association 4915 St. Elmo Avenue Suite 401 Bethesda, Maryland 20814 301 657-1291 301 657-1296 (fax) www.amia.org

> > **April**, 2008

**Final Report** 

PREPARED FOR: U.S. Army Medical Research and Materiel Command Fort Detrick, Maryland 21702-5012

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### American Medical Informatics Association

Leaders Shaping the Future of Biomedical and Health Informatics

# W81XWH-08-1-0003 Partial Conference Grant Support American Medical Informatics Association 2007 Annual Symposium Final Report

#### Introduction

The American Medical Informatics Association (AMIA) is pleased to submit this report to the Telemedicine and Advanced Technologies Research Center (TATRC) which summarizes the TATRC related sessions that were convened during the AMIA 2007 Annual Symposium. AMIA was awarded a partial conference support grant. Two main activities were undertaken:

- Convene an Invitational Expert Panel Meeting to "Establish a Framework for Sharing of Executable Knowledge for Computer-Based Clinical Decision Support
- Conduct an Advanced Briefing for the Informatics Industry (ABFII)

Each of these is described in greater detail below following a general over view of the meeting itself:

#### **Annual Symposium Summary**

The Symposium is the world's most comprehensive annual conference on biomedical and health informatics, with recent and upcoming examples including biomedical and health informatics education, the role of informatics in quality improvement in health care, and informatics in public health. Members of the 2007 Scientific Program Committee are depicted in an attachment.

- A post meeting summary of the 2007 meeting is available on line. (http://www.amia.org/meetings/f07/post.asp)
- The 2007 meeting program and agenda is available online and as a pdf file (http://www.amia.org/meetings/f07/docs/program.pdf)

Convene an Invitational Expert Panel Meeting to "Establish a Framework for Sharing of Executable Knowledge for Computer-Based Clinical Decision Support".

The Morningside Initiative is a public-private partnership that has evolved from a meeting at the Morningside Inn sponsored by the Telemedicine and Advanced Technology Research Center (TATRC) of the US Army Medical Research and Materiel Command. Participants were subject matter experts in clinical decision support (CDS) and included representatives from the military health system Department of Defense

(DoD), the Veterans Health Administration (VHA), Kaiser Permanente, Partners Health Care, Henry Ford Health System (HFHS), Arizona State University (ASU), the American Medical Informatics Association (AMIA), and TATRC.

The Morningside Initiative is a concept developed in response to the AMIA Roadmap for National Action on Clinical Decision Support (CDS) and other considerations and experiences of the participants. It is based on the recognition that sharing of clinical knowledge needed for CDS across organizations is currently virtually non-existent, and that, given the considerable investment needed for creating, maintaining and updating authoritative knowledge, which only larger organizations are able to undertake, this is an impediment to widespread adoption and use of CDS. Through the initial collaboration of a small group of key, committed participants, the intent is to develop and refine (1) an organizational framework, (2) a technical approach, and (3) content acquisition and management processes that are effective and can be scaled up to include a broader range of participants and expanded in scope of content and capabilities addressed.

This was an invitational meeting of key leaders and AMIA members who leveraged work conducted during the Knowledge Sharing Initiative conference supported by TATRC that occurred in August 2007. The goal of the CDS meeting was to convene key individuals and representatives of organizations from the public and private sectors that can help to define and launch an initial CDS pilot project. Participants represented academia, industry, researchers, and philanthropy, to develop a research plan and to scope out the initial knowledge content focus. Several working committees were formed:

#### Technology Committee:

- LTC Nhan Do M.D., Tricare Management Activity (TMA), OASD(HA)
- Vipul Kashyap Ph.D., Partners Health Care
- COL Andre Marinkovich, Tricare Management Activity (TMA), OSD(HA)
- LTC Hon S. Pak M.D., Telemedicine and Advanced Technology Research Center (TATRC)
- Hemant Shah MBBS, Henry Ford Health System

#### Administration Committee:

- Meryl Bloomrosen, MBA, American Medical Informatics Association (AMIA)
- Brad Doebbeling, MD, MSc, Veterans Health Administration
- Robert N. Enberg M.D., Henry Ford Health System
- LCDR Ron Gimbel, Ph.D., FACHE, Uniformed Services University of the Health Sciences (USUHS)
- Dean F. Sittig, Ph.D., Northwest Permanente and Oregon Health & Science University
- Adam Wright Ph. D., Partners Health Care

#### Content Committee:

- COL James Benge, Clinical Information Technology Program Office (CITPO), OASD(HA)
- Mark Graber M.D., Veterans Health Administration

- Roxane Rusch, Veterans Health Administration
- Syed Tirmizi M.D., Veterans Health Administration

In November 2007, an invitation-only Executive Briefing on the Morningside Initiative for the Collaborative Development of a Knowledge Management Repository to Accelerate Adoption of Clinical Decision Support was held on Monday, November 12, 2007 at the Sheraton Chicago Hotel and Towers Cityfront Center, Chicago, Illinois, concurrent with the AMIA Annual Symposium. During this Executive Briefing, participants discussed the proposed organizational framework, technical approach, and content acquisition and management processes as envisioned by the Morningside Initiative participants for your comment and feedback. The briefing included a demonstration of a prototype knowledge repository that has been built by the Morningside Initiative team.

Attendees were: Nancy E. Brown-Connolly (TATRC), David Bates (Partners), Meryl Bloomrosen (AMIA), Elaine, Collier (NCRR), Don Detmer (AMIA), Brad Doebbeling, Stephen Downs RWJF), Blackford Middleton (Partners), Robert Enberg (Henry Ford Health System), Linda Fischetti, (VHA), John Glaser (Partners), Col. David Gilbertson (DoD), Robert A. Greenes (Arizona), Miriam Halimi (AMIA), Vipul Kashyap (Partners), Robert Kolodner (ONC), Hon S. Pak (TATRC), Dean Sittig (Kaiser), Hemant Shah (Henry Ford Health System), Syed Tirmizi (VHA), Paul Tang (AMIA), Jon White,(AHRQ), Thomas Payne (AMIA), Douglas Rosendale, Robert Conners, Stanley Saki, Marc Wine (TATRC), and Adam Wright (Partners).

#### Summary of Morningside Initiative and Efforts to Date

During the Briefing, collaborators presented the proposed organizational framework, technical approach, and content acquisition and management processes. The briefing also included a demonstration of a prototype knowledge repository that has been built by the Morningside Initiative team. The discussion was good, covered a number of areas, supported the concept and identified additional work to be done. Of significance is the openness of the discussions and the agreement that we should proceed forward. Other feedback from the meeting from the attendees identified the need to develop a governance structure as well as the need to continue work on the technical and content areas. Participants recognized that it is very important to pay a lot of attention to the business model up front as it might influence a lot of technical, organizational and governance decisions.

The Morningside Initiative is in the early stages of developing a web-based open source/content Knowledge Repository. A private-public partnership of the following entities; DoD, VHA, Northwest Kaiser Permanente, Henry Ford Health System, Partners and Arizona State University. Healthcare organizations must exhibit a willingness to share medical knowledge for the collective good to keep from continually reinventing the wheel at great cost. The goal is to make CDS a reality for the broader healthcare community of integrated systems and individual practitioners, decrease cost of development and implementation. Increase access to CDS through a public-private

partnership. The Knowledge Repository will produce a unified base for efficiency of function and equivalency within the Federal and public sector. Efforts will be aimed at developing and testing a framework for knowledge sharing. Knowledge Repository development funding is needed to bring "Proof of Concept" to reality. It is envisioned to be a 5 year process. Partial funding for the initial test website is being provided by the Telemedicine and Advanced Technology Research Center (TATRC). The website will initially be housed at Fort Detrick, MD as an R&D effort.

Activities are moving forward with the building of the proposed Knowledge Repository. There are plans to have a panel at the AMIA 2008Annual Symposium f on collaborative approaches to making clinical decision support knowledge available. The proposed structure is:

- Tom Payne: Moderator
- Speakers:
  - o Jon White, AHRQ programs and interests
  - o Hon Pak, TATRC activities
  - o Blackford Middleton, AHRQ CDS Consortium
  - o Rick Shiffman, AHRQ project
  - o Bob Greenes, Morningside Initiative

At the 2007 AMIA Annual Meeting, there was an **Advanced Briefing for the Informatics Industry (ABFII)** on the topic of "Medical Informatics" where a panel of military informatics leaders described areas of potential interest for future funding to be followed by one-to-one discussions with potential applicants/grantees. The main benefit and relevance was to further partnerships with academic and research communities and to assure that there is a significant presence in ongoing and future discussions and research relevant to clinical, biomedical and translational informatics.

The Advanced Briefing was a venue for Symposium Participants to learn about federal grant and contract spending on telemedicine and advanced medical technologies and how to participate with the agencies that manage these critical investments. Federal program directors will make presentations and be available for one-on-one appointments afterwards. Sign up sheets were available for scheduling one-on-one interviews with the TATRC presenters and portfolio managers. Scheduling was on a first come, first serve basis. Speakers included:

LTC Hon S. Pak, M.D.
Chief, Advanced Information Technology Group (AITG)
Telemedicine & Advanced Technology Research Center (TATRC)

COL David Gilbertson, Program Manager Clinical Information Technology Program Office (CITPO) Department of Defense

Nancy E. Brown-Connolly

Clinical Consultant, Program Manager Advanced Information Technology Group (AITG) Telemedicine and Advanced Technology Research Center (TATRC) Portfolio: Clinical Decision Support, Interoperability, CPOE, SMS

Tom Bigott, Program Manager Advanced Information Technology Group (AITG) Telemedicine and Advanced Technology Research Center (TATRC) Fort Detrick, MD Portfolio: Common Development Environment

Eva Lai Ph.D.
Deputy Chief Scientist
Telemedicine and Advanced Technology Research Center (TATRC)
Fort Detrick, MD
Portfolio: Mobile Computing, Data Modeling

Robert E. Connors, FACHE, PMP, MS, MHA
Advanced Information Technology Group (AITG)
Telemedicine and Advanced Technology Research Center (TATRC)
Sub-Portfolio: Human-Computer Interface, Interoperability, and Decision Support

Recommendations for the future include the following:

- More widespread and advance information about the briefing should be provided to attendees.
- Additional time should be provided for the one-on one sessions.

## Attachment Attendees at the TATRC Informatics Briefing

- Cynthia Scheiderman-Miller, Evident Telehealth Services, clsmiller@sbcglobal.net
- Paul Cox, PERLResearch, paul@perlresearch.com
- RPC Rodgers, LHC, NLM, NIH, RODGERS@NLM.NIH.GOV
- Der-Fa Lu, University of Iowa, der-fa-lu@uiowa.edu
- Bill Hersh, Oregon Health Sciences University, hersh@ohsu.edu
- Rds Mc Clure, Apelor, rmcclure@apelor.com M Research, ebling@usibm.com
- Jay Urban, IIT, urbanjay@iit.edu
- Mike Cummens, Gilman Dragon LLC, mcummens@gmail.com
- Tom Kelley, Lockheed Martin, tom.kelley@lmco.com
- Russell Hamm, APELON, chamm@apelon.com
- Ross Dahman, MEDIGRIDS, ross.dahman@medigrids.com
- Pat Wilson, 3M HIS Inc., pswilson@mmm.com
- Bob Enberg, Henry Ford Health System, renberg@hfhs.org
- Patricia Williams, Henry Ford Health System, pwilliams@hfhs.org
- Michael Waddell , Pangaea IT, mwaddell@pangaeatech.com
- Dennis Carson, PTPID, dcarson@pepid.com
- Beth Bowman, University of Tennessee, ebowman@utmem.edu
- Verba Moore, Zel Technologies, verba.moore@zeltech.com
- Randy Eccles, Northrup Grumman, randy eccles@chcsii.com
- Kimberly Hultquist, Lockheed Martin, Kimberly.c.hultquist@lmco.com
- Ilene Kesselman, Lockheed Martin, Ilene.n.kesselman@lmco.com
- Jeffrey Beyer, Lockheed Martin, jeffrey.a.beyer@lmco.com
- Naima Carter-Honroe, SHU Informatics, ncarte13@jhmi.edu
- Doug Goldstein, Medical Alliances, doug@medicalalliances.com
- Robert H. Friedman, Boston University, rfriedma@bu.edu
- Bruce Bray, University of Utah, bruce.bray@utah.edu
- Les Westberg, Northrup Grumman, las.westberg@chcsii.com
- Vipul Kashyap, Partners Healthcare, vkahsyap1@partners.org
- Paul and Ruth Ross, Learntec, pross@engr.wisc.edu, Ruth.ross@ameritech.net
- Hemant Shah, HFHS, hshah2@hfhs.org
- Joseph Norman, University of Michigan, jwnorman@umich.edu
- Pete White, Childrens Hospital Philadelphia,, white@genome.chop.edu
- Long Ou, Childrens Hospital Philadelphia, qul@email.chop.edu
- Cheyl Toth, Medical Alliances, Cheryl@medicalalliances.com
- Mary Walker, Apptis Inc., mary.walker@apptis.com

#### Attachment: AMIA 2007 Scientific Program Committee Jonathan M. Teich, MD, PhD, Chair,

This track emphasized conceptual advances relating to the structure, processing, management, and use of biomedical information. This track presented the results of innovative research on the scientific underpinnings of biomedical and health informatics - highlighting the fundamental advances that lead to new methods and, ultimately, to new applications in support of health care, biological research, and education.

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#### Scientific Program Committee Foundations of Informatics Trac

Jaap Suermondt

Hewlett-Packard Laboratories

Constantin F. Aliferis Vanderbilt University

David L. Buckeridge McGill University

Atul J. Butte
Stanford University School of Medicine

Christopher G. Chute Mayo Clinic College of Medicine

> Gregory F. Cooper University of Pittsburgh

Carol Friedman
Columbia University

Peter J. Haug University of Utah Intermountain Health Care

Yves A. Lussier University of Chicago

Alexa T. McCray Harvard Medical School

> Anna M. McDaniel Indiana University

#### **Applications of Informatics Track**

This track emphasized innovations in the design, technology, implementation, use and evaluation of information systems and knowledge resources across the full spectrum of health care - in acute, ambulatory, and chronic care settings, public health departments, libraries, educational centers, and homes. Contributions to this track emphasized applications that work in the real world to solve important problems.

#### Scientific Program Committee Applications of Informatics Track

George Hripcsak Columbia University

Patricia Abbott Johns Hopkins University

Douglas S. Bell University of California, Los Angeles

Cynthia Brandt Yale University School of Medicine

Patricia Flatley Brennan University of Wisconsin-Madison

R. Scott Evans University of Utah Intermountain Health Care

> Mark E. Frisse Vanderbilt University

Joseph W. Hales
University of Utah
Primary Children's Medical Center

Stanley M. Huff University of Utah Intermountain Health Care

Michael G. Kahn University of Colorado

Michael Krauthammer Yale University

Rita Kukafka Columbia University

Kenneth D. Mandl Harvard University

Julie J. McGowan Indiana University

Thomas H. Payne University of Washington

Samuel T. Rosenbloom Vanderbilt University Medical Center

> Jonathan C. Silverstein University of Chicago